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<b>(21) International Application Number:</b> PCT/US00/04573 <b>(22) International Filing Date:</b> 23 February 2000 (23.02.00) <b>(30) Priority Data:</b> 60/121,329 24 February 1999 (24.02.99) US <b>(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application</b> US 60/121,329 (CIP) Filed on 24 February 1999 (24.02.99) <b>(71) Applicant (for all designated States except US):</b> THE DOW CHEMICAL COMPANY [US/US]; 2030 Dow Center, Midland, MI 48674 (US). <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> GARTNER, Herbert, A. [DE/DE]; Rebgasse 14, D-76534 Baden-Baden (DE). <u>MORK</u> , Steven, W. [US/US]; 4302 Robinhood Terrace, Midland, MI 48642 (US). <u>SHICK</u> , Reed, A. [-/US]; 2470 E. Newcastle Lane, Midland, MI 48640 (US). <u>KLIER</u> , John [US/US]; 5215 Shoal Creek Circle, Midland, MI 48642 (US). <u>HERR</u> , Heike [-/DE]; Kohlenweg 10, D-77855		<b>(74) Agent:</b> HAYHURST, Paul, D.; P.O. Box 1967, Midland, MI 48641-1967 (US). <b>(81) Designated States:</b> CN, JP, KR, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
<b>(54) Title:</b> MANUFACTURE OF SUPERABSORBENTS IN HIGH INTERNAL PHASE EMULSIONS <b>(57) Abstract</b> <p>The present invention refers to a high internal phase polyelectrolyte emulsions which are useful for the manufacture of superabsorbent polymers having two phases: i) a continuous oil phase and the ii) a dispersed aqueous phase containing the aqueous monomer solution prior to polymerization and the polyelectrolyte in water-soluble, or water-swellaable or very slightly crosslinked form after polymerization, wherein the polymerization occurs in the dispersed aqueous phase and wherein the dispersed aqueous phase contains a high concentration of polyelectrolyte. The present invention also refers to a process for preparing such emulsions and for inverting these emulsions so as to form films or other patterns of the superabsorbent polymer. Absorbent structures containing SAP films or other patterns prepared by the present invention are also contemplated.</p>		